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Wolves Lose in Attempted Minnesota Recolonization

The Wolves of Coronation Island: The First Experiment in Wolf-Prey Interactions

International Wolf Center Reaches Out to the Western United States

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Wolves Lose in Attempted Minnesota

Foxes, coyotes, golden jackals and wolves are colonizing new areas around the world, often putting them in the crosshairs of human anger and concern. Wolves are known for their adaptability. They move into new territory where they find food, form a pack and raise pups under a variety of circumstances, including places with nearby military bases, farms, villages and even cities.

See the Fall 2018 issue of *International Wolf*, where an article entitled *Wild Canids Among Us—Can We Coexist*? traces several instances of foxes, coyotes, golden jackals and wolves that are colonizing new areas around the world, often putting them in the crosshairs of human anger and concern.

One such instance highlighted in that article—the incursion of wolves into a suburban/rural interface near the Twin Cities of St. Paul and Minneapolis, Minnesota—was the topic of a paper entitled *Gray Wolf (Canis lupus) recolonization failure: A Minnesota case study*, published in 2019 in *Canadian Field-Naturalist.* It serves as a cautionary example of how a pack that appears to be expanding and thriving can find itself on the wrong side of its human neighbors and, almost overnight, disappear.

The primary author of that study, Dr. L. David Mech, notes in the article that "Although wolves have recolonized much of the northern half of Minnesota as well as many areas of Wisconsin and Michigan over the last few decades, they have failed to recolonize many other adjacent areas with adequate natural prey. These latter areas are those with considerable populations of people and domestic animals. However, it is not for lack of trying."

Wolves are much more prevalent in Minnesota than in neighboring states it is home to the largest population of wolves in the lower 48 states, with an estimated 2018 population of 2,655 wolves compared to Wisconsin and Michigan, with at least 905 and 662 wolves, respectively. Noting that recolonization is more successful where there are fewer opportunities for clashes with humans, Mech continues, "Given the great variation in land use across large areas, gradients of wolf-recolonization suitability exist; thus, along the frontiers of established wolf populations, wolves will continue to attempt to expand into areas with higher predicted probabilities of recolonization, with varied results."

In the late 1990s, University of Wisconsin–Madison professor Dr. David Mladenoff proposed a system of

Recolonization By TRACY O'CONNELL

Wolves that moved into the study area grew in number over two years from four to 19 members —and within a year, at least 18 of them were eradicated or otherwise disappeared. Two known prior attempts to recolonize the area foreshadowed their ill-fated choice. predicting what areas would be conducive to successful wolf recolonization. Mech used Mladenoff's work in a study of 101 Wisconsin wolf packs he examined over nine years and found that wolves were colonizing areas that Mladenoff's work would have deemed unsuitable. Mech observed in his study, published in the *Wildlife Society Bulletin* in 2006, "Instead, 60 percent of the packs colonized areas of 50 percent probability, including 22 percent in areas of lowest probability. In addition, about a third of the available area of high probability was not known to be colonized."

Given this experience, Mech looked at how this emerging pack in Minnesota would navigate the region that, according to Mladenoff's work, would suggest a success rate of 10 percent or lower. In that instance—despite the wolves' early and aggressive incursion and expansion of numbers—Mladenoff's predictions rang true.

The case study notes that the area under observation—northern Anoka and southern Isanti counties in east-central Minnesota—is mostly rural-residential and agricultural, interspersed with patches of uninhabited lowlands and woodlots, the largest being the University of Minnesota Cedar Creek Ecosystem Science Reserve. The reserve, located at the nexus of three major ecosystems, has for 75 years been more intensively studied than most places in the world, according to Education and Outreach Coordinator Dr. Caitlin Potter, who oversees a cadre of citizen scientists. In addition to the reserve, roughly half the area frequented by the recolonizing wolf pack features open agricultural fields with many roads. Natural prey includes white-tailed deer and wild turkeys. The area is also inhabited by small herds of cattle, including some calves, and by domestic dogs, some free-ranging.

Alternately called the Cedar Creek pack and the Isanti pack, wolves that moved into the study area grew in number over two years from four to 19 members—and within a year, at least 18 of them were eradicated or otherwise disappeared. Two known prior attempts to recolonize the area foreshadowed their ill-fated choice. During 1997, wolves were recorded nearly 28 miles west, near the Sherburne National Wildlife Refuge, but disappeared within seven years for unknown reasons. In 2010–2011, a new pack survived for two years about 15.5 miles south of the current Minnesota wolf

range, but two adults, a yearling and four pups were lethally removed in a depredation control effort.

The next incursion of wolves outside the current wolf rangethe topic of this case study—came a couple of years later in the winter of 2014-15. when a trail camera recorded three to four adultsized wolves. During this period, a coyote trapper reported catching a wolf in the area. The following summer, wolves denned on the Cedar Creek Science Reserve and produced at least eight pups that were frequently seen throughout the follow-

ing year by researchers and others. From August 2015 to April 2016, the wolves killed three dogs and three head of cattle, and wounded one head of livestock. As a result, in April 2016, Wildlife Services, the federal government's depredationcontrol agency, lethally removed three male wolves that weighed 77 to 103 pounds, according to the study. Each case of depredation in the study area was officially confirmed to be a wolf kill.

That June, the wolves killed a 200-pound calf, and Wildlife Services lethally removed three wolves—a yearling female weighing nearly 60 pounds, a male nearly 80 pounds and a breeding female, 70 pounds—but signs of more adult wolves remained. Four pups were captured alive and released on site due to U.S. Fish and Wildlife



Service requirements that all young born before August 2 be released. A fifth pup was found dead in a snare.

During autumn 2016, trail cameras showed at least one wolf still using the study area, and in May 2017, wolves killed another calf in the same area as



the previous year. Wildlife Services lethally removed a 70-pound male and a 57-pound, non-breeding female. Between then and February 2019, area trail cameras recorded only one wolf. Dr. Forest Isbell, associate director of the science reserve and lead investiga-

tor in the study, confirms that, as a property owner near the study area, he had seen only one wolf recently.

This case history illustrates the fact that when wolves begin to establish packs in areas with livestock and dogs, they may



begin treating domestic animals as natural prey. The study adds that this usually happens soon after the wolves start reproducing, especially when a third age-class, such as juveniles from a prior year's litter, is present. Domestic animals make easy targets compared to wild prey, and the increase in domestic depredations may result from fewer natural food sources and more dependent wolves to feed. Food shortage was not the case in the Isanti pack depredations, as all the wolves caught were in excellent condition. Four of the eight lethally removed were above average weight for

> wolves feeding on all natural prey.

The study concludes, "Despite living among people and livestock close to the suburbs of Minneapolis and St. Paul, the Isanti wolf pack was able to use small areas away from humans to den and raise their young and, in that way, persist for at least three years. Like so many other

wolf attempts to recolonize similar areas of Minnesota and other states, this one nevertheless failed because of the conflict that often results from wolves living close to areas with high densities of people, livestock and pets. Wolf survival in the long term requires large areas of extensive wild lands. This case details why."

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